ATTACHMENT F-1

Stormwater Management Plan Instructions: To Accompany All Grading Permit Applications

In order to comply with the federal Clean Water Act, the state Water Code and County Ordinances, the County of San Diego requires that property owners complete a Stormwater Management Plan prior to issuance of any Grading Permit. The purpose of a Stormwater Management Plan is to document Best Management Practices (BMPs) that will be implemented to prevent pollutants (including sediment) from entering stormwater conveyances and receiving waters. The Stormwater Management Plan becomes a part of the Grading Permit and is subject to enforcement by County inspectors and others.

Stormwater Management Plans include the elements described in the following sections:

Section 1: Required Information - This section is used to provide the County with basic information necessary to evaluate and prioritize project activities. Each of the items in this section must be completed, except projects with less than 5 acres of disturbed area are not required to have a Waste Discharge Identification Number (WDID). Grading projects with a disturbed area of 5 acres or greater must also meet additional requirements from the State Water Resources Control Board (SWRCB). Those additional requirements include filing a Notice of Intent (NOI) and preparation of a Stormwater Pollution Prevention Plan (SWPPP).

Please note that watercourses and waterbodies include ephemeral drainages (i.e., those that are dry during part of the year).

Section 2: Best Management Practices - Best Management Practices (BMPs) must be selected and implemented to prevent erosion and construction-related materials, sediment, wastes and spills from entering stormwater conveyances and receiving waters.

Note: It is the responsibility of the property owner and the contractor to determine the types of BMPs that will be used, as well as the levels of application necessary to comply with the County's Stormwater and Grading Ordinances. Failure to prevent soil erosion and discharges of sediment and other pollutants from construction sites is subject to enforcement by the County or others. At a minimum, the County requires that the BMPs listed in Table A (attached) be installed and maintained for all grading projects. Additional BMPs listed in Table B (attached) may also be required in correlation to a project's scope, potential for discharges and proximity to a watercourse or other receiving waters.

Section 3: Certification – The property owner must sign this section certifying that they understand the County's minimum requirements for stormwater management of construction activities and will implement, monitor and maintain the selected BMPs to ensure their effectiveness.

A County BMP manual can be found at the DPW and DPLU Permit Counters. The Manual includes all of the referenced BMPs listed in Tables A and B and from the *Caltrans Storm Water Quality Handbooks* and *California Stormwater BMP Handbook for Construction*. The entire manuals may also be ordered directly from the following sources:

Caltrans Manuals
Caltrans Publications unit
(916)445-3520
(916)324-8997 Fax

County of San Diego

STORMWATER MANAGEMENT PLAN

ATTACHMENT F-1
(Continued)

This form must be submitted with all Grading Permit Applications.

SECTION 1. Required Information

Grading Permit Application Number:		Project Name:	
Name of Project Contact Person:		Project address or location:	
Title:	Phone #:		APN #:
Grading start date:	Grading finish date:	Project start date:	Project finish date:

Estimated amount of disturbed acreage:_____ acres (If equal to or greater than 5 acres, you must also provide a WDID number from the SWRCB.) WDID _____

Are there any watercourses or waterbodies within 50 feet of the limits of soil disturbance? YES____NO___

Does the soil type have high erosion potential (fine grain soil like sand, silt, fine disintegrated granite) ? YES _____ NO _____

Does the project site have or propose slopes higher than 25 feet or steeper than 1:1? YES ____ NO _____

Best Management Practices

The goal of stormwater management planning is to reduce pollution to the maximum extent practicable by implementing Best Management Practices (BMPs). There are five categories of BMPs: 1) Erosion control practices, and; 2) Velocity reduction, and; 3) Sediment control practices, and; 4) Offsite sediment tracking control, and; 5) General site and materials management. BMPs from each of the five categories must be used together as a system in order to prevent erosion, sediment, wastes, spills, and residues from leaving the site. When properly implemented, monitored and maintained, BMPs will function to prevent pollutants (including sediment) from leaving the site. It is the responsibility of the property owner and the contractor to determine the types of BMPs that will be used, as well as the levels of application necessary to comply with the County's Stormwater and Grading Ordinances.

Best Management Practice Tables Tables A and B (attached) must be used to indicate those BMPs that will be used to prevent stormwater pollution. At a minimum, the County requires that the BMPs listed in Table A be installed on all grading projects. However, some BMPs may not be applicable to every project. For example, if storm drain inlets are not present, then Storm Drain Inlet Protection (BMP SC10) would not be applicable.

Grading Plan Best Management Practice Checklist

The following information shall be shown on the grading plans:

- ❑ The project boundaries.
- ❑ The footprint of any existing structures and facilities.
- ❑ The footprint of all structures and facilities to be constructed.
- ❑ The limits of grading.
- ❑ The existing and proposed grades of the site, along with any intermediate grades that will significantly affect site drainage patterns.
- ❑ The location(s) where runoff from the site may enter storm drain(s), channel(s), and/or receiving waters.

The following certification must be signed before a Grading Permit will be issued.

I have read and understand that the County of San Diego has adopted minimum requirements for stormwater management of construction activities. I certify that the BMPs I have selected in Tables A and B will be implemented to effectively minimize the potentially negative impacts of this project's construction activities on stormwater quality. I further agree to install, monitor, maintain or revise the selected BMPs to ensure their effectiveness.

I also understand that non-compliance with the County's Stormwater and Grading Ordinances may result in enforcement by the County, including fines, citations, stop-work orders, cease and desist orders or other actions.

Property owner _____ *Date* _____

TABLE A
MINISTERIAL and MINOR PERMIT REQUIRED CONSTRUCTION BMPs

Minimum Required Best Management Practices (BMPs)	CALTRANS Stormwater Handbook Detail	✔ BMP **Selected**	Each selected BMPs must be shown on Grading Plan. If No BMP is selected, explain why
Step 1 Select Erosion Control method for graded Slopes (choose at least one)			
Vegetation Stabilization Planting *(see* note 1)	**SS-2 SS-4**		
Hydraulic Stabilization Hydroseeding *(see note 1)*	**SS-3 SS-4**		
Bonded Fiber Matrix *(see note 2)*	**SS-4**		
Physical Stabilization Erosion Control Blanket*(see note 2)*	**SS-7**		
Step 2 Select Erosion Control method for graded Flat Areas (slope < 5%) (choose at least one)			
Will use above Slope Control measures on flat areas also	**SS-2,3,4,7**		
Mulch, straw, wood chips, soil application	**SS-6 SS-8**		
De-silting Basin (must treat all site runoff)	**SC-2**		
Step 3 If runoff is concentrated, velocity must be controlled using energy dissipater			
Energy Dissipater Outlet Protection *(see note 3)*	**SS-10**		
Step 4 Select Sediment Control method for all disturbed areas (choose at least one)			
Silt Fence	**SC-1**		
Straw Wattles	**SC-5**		
Gravel Bags	**SC-6 & 8**		
Storm Drain Inlet Protection	**SC-10**		
De-silting Basin (sized for 10-year flow)	**SC-2**		
Step 5 Select method for preventing offsite tracking of sediment (choose at least one)			
Stabilized Construction Entrance	**TC-1**		
Construction Road Stabilization	**TC-2**		
Entrance/Exit Tire Wash	**TC-3**		
Entrance/Exit Inspection & Cleaning Facility	-		
Step 6 select the General Site Management BMPs for each waste that will be on site			
Materials Management Material Delivery & Storage	**WM-1**		
Waste Management Concrete Waste Management	**WM-8**		
Solid Waste Management	**WM-5**		
Sanitary Waste Management	**WM-9**		
Hazardous Waste Management	**WM-6**		

Notes

1. **When Planting or Hydroseeding are selected for erosion control, the vegetative cover must be planted by August 15th and established by October 1st. If in the opinion of the County Official the vegetative cover is not established by October 1st, additional hydraulic or physical erosion control BMPs will be required.**
2. **These BMPs are temporary measures only when used without planting or hydroseeding. All slopes must have established vegetative cover prior to final grading approval.**
3. **Regional Standard Drawing D-40 - Rip Rap Energy Dissipater is also acceptable for velocity reduction.**
4. **Not all grading projects will have every waste identified. The applicant is responsible for identifying wastes that will be on-site and applying the appropriate BMP. For example, if concrete will be used, BMP WM-8 should be selected.**

Table B ***ADDITIONAL BMPs available for use in conjunction with minimum BMPs***

Erosion Control	CALTRANS Stormwater Handbook Detail
Site Development Considerations Scheduling	**SS-1**
Preservation of Existing Vegetation	**SS-2**
Other (submit description for approval)	
Vegetation Stabilization Vegetation Buffer Strips	**SS-2**
Physical Stabilization Dust Control	**WE-1**
Soil Stabilizers	**SS-5**
Diversion of Runoff	
Earthen Dikes	**SS-9**
Ditches and Berms	**SS-9**
Slope Drains	**SS-11**
Temporary Drains & Swales	**SS-9**
Velocity Reduction	
Check Dams	**SS-4**
Slope Terracing	-
Sediment Control	
Brush or Rock Filter	-
Sediment Trap	**SC-3**
Sediment Basin	**SC-2**
General Site Management	
Employee & Subcontractor Training	-
Materials Management Spill Prevention & Control	**WM-4**
Waste Management Contaminated Soil Management	**WM-7**
Vehicle and Equipment Management Vehicle & Equipment Cleaning	**NS-8**
Vehicle & Equipment Fueling	**NS-9**
Vehicle & Equipment Maintenance	**NS-10**
Construction Practices Water Conservation	**NS-1**
Structure Construction & Painting	-
Paving Operations	**NS-3**
Dewatering Operations	**NS-2**

Alternatives stormwater protection measures may also be presented for County consideration in any category.

ATTACHMENT G-1

Table 1- Pollutants from the Project Area

	General Pollutant Categories								
Priority Project Categories	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Development	X	X			X	X	X	X	X
Attached Residential Development	X	X			X	P(1)	P(2)	P	X
Commercial Development >100,000 ft^2	P(1)	P(1)		P(2)	X	P(5)	X	P(3)	P(5)
Automotive Repair Shops			X	X(4)(5)	X		X		
Restaurants					X	X	X	X	
Hillside Development >5,000 ft^2	X	X			X	X	X		X
Parking Lots	P(1)	P(1)	X		X	P(1)	X		P(1)
Streets, Highways & Freeways	X	P(1)	X	X(4)	X	P(5)	X		
Retail Gas Outlets			X	X(4)	X		X		

X = anticipated
P = potential
(1) A potential pollutant if landscaping exists on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

ATTACHMENT G-2

Table 2-Standard Storm Water BMP Selection Matrix

Project Category	*Site Design BMPs[1]*	*Source Control BMPs[2]*	*Treatment Control BMPs[3]*	*Requirements Applicable to Individual Project Categories[4]*										
						a. Dock Areas		b. Vehicle Wash Areas	c. Outdoor Processing Areas	d. Equipment Wash Areas	e. Parking Areas	f. Roadways	g. Fueling Areas	h. Hillside Landscaping
Detached Residential Development	R	R	S											R
Attached Residential Development	R	R	S											
Commercial Development >100,000 ft^2	R	R	S			R		R	R					
Automotive Repair Shop	R	R	S			R		R		R			R	
Restaurants	R	R	S			R				R				
Hillside Development >5,000 ft^2	R	R	S											R
Parking Lots	R	R	S								R			
Streets, Highways & Freeways	R	R	S									R		
Retail Gas Outlets	R	R	S					R		R			R	

R = Required
S = Select one or more applicable and appropriate treatment control BMPs if needed to meet MEP and performance standards.

ATTACHMENT G-2

Table 2-Standard Storm Water BMP Selection Matrix (continued)

Project Category	*Site Design BMPs[1]*	*Source Control BMPs[2]*	*Treatment Control BMPs[3]*	*Requirements Applicable to Individual Project Categories[4]*										
				i. Private Roads	j. Residential Driveways & Guest Parking	k. Dock Areas	l. Maintenance Bays	m. Vehicle Wash Areas	n. Outdoor Processing Areas	o. Equipment Wash Areas	p. Parking Areas	q. Roadways	r. Fueling Areas	s. Hillside Landscaping
Detached Residential Development	R	R	S	R	R									R
Attached Residential Development	R	R	S	R										
Commercial Development >100,000 ft^2	R	R	S			R	R	R	R					
Automotive Repair Shop	R	R	S			R	R	R		R			R	
Restaurants	R	R	S			R				R				
Hillside Development >5,000 ft^2	R	R	S	R										R
Parking Lots	R	R	S								R			
Streets, Highways & Freeways	R	R	S									R		
Retail Gas Outlets	R	R	S					R		R			R	

R = Required.
S = Select one or more applicable and appropriate treatment control BMPs if needed to meet MEP and performance standards.

ATTACHMENT G-3

Enhanced Treatment Control BMP Selection Matrix

Pollutant of Concern	*Treatment Control BMP Categories*						
	Biofilters	Detention Basins	Infiltration Basins(2)	Wet Ponds or Wetlands	Drainage Inserts	Filtration	Continuous Flow Deflection Systems(3)
Sediment	M	H	H	H	M	H	M
Nutrients	L	M	M	M	M	M	L
Heavy Metals	M	M	M	H	M	H	L
Organic Compounds	U	U	U	U	L	M	L
Trash & Debris	L	H	U	U	M	H	M
Oxygen Demanding Substances	L	M	M	M	L	M	L
Bacteria	U	U	H	U	L	M	L
Oil & Grease	M	M	U	U	L	H	L
Pesticides	U	U	U	U	L	U	L

(1) The County will periodically assess the performance characteristics of many of these BMPs to update this table.
(2) Including trenches and porous pavement.
(3) Also known as hydrodynamic devices and baffle boxes.

L (Low): Low removal efficiency
M (Medium): Medium removal efficiency
H (High): High removal efficiency
U: Unknown removal efficiency, applicant must provide evidence supporting use

Sources: *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* (1993), *National Stormwater Best Management Practices Database* (2001), and *Guide for BMP Selection in Urban Developed Areas* (2001).